Title: Redesign of NYS IPM Website, http://www.nysipm.cornell.edu

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Abstract:

Introduction: The NYS IPM Program's website is primarily a collection of documents about IPM practices, or about the program itself. Through the website one can access 12 Crop Profiles, 27 Elements of IPM, 117 Fact Sheets, 434 Project Reports, 10 Labeling documents, 80 Program description pages, 22 PSAs, over 100 online Brochures, Manuals, and Scholarly Papers, and numerous titles listed in our Catalog. Other supporting and informative pages bring the total to approximately 1800 pages.

While the website in its current state is fulfilling its mission, (we expect to have over 1 million pages successfully downloaded by visitors this year), it was decided a year ago that the site could be much more efficient. Crafting ever-growing lists of our publications for static pages, and keeping them up-to-date, was becoming an overwhelming task. The graphic interface was beginning to look tired and old. A redesign was needed that would better handle the volume of information the site provides, and update its look.

Objectives:
Redesign website as needed so that interface reflects modern standards and takes advantage of current technology.

a. Ensure that the website's physical server space is such to take advantage of server-side technology, optimal bandwidth and storage, etc.
b. Update graphic design as needed in order to enhance eye appeal and navigation. Use advanced graphic software and server-side technology such as includes and Cascading Style Sheets.
c. Use Javascript and ASP technology to enhance the usability of the website and continue to make changes based on feedback from users and stakeholders.
d. Continue to utilize database technology to make the website more efficient and to personalize content for users.
e. Guide others in the Program on ways they can take advantage of new technology, specifically when submitting content to the website.

Materials, Methods, and Progress So Far:
The new website will be hosted by a pc computer running Windows 2003 server operating system, with a storage capacity of 120 Gb. Faster bandwidth capabilities are available at the Ithaca campus where it is located. A faster bandwidth will speed up download times of the website.

Another way in which we will save download time is by using server-side technology, which makes it possible to compose pages as they are requested by the website visitor. Sever-side technology also makes it possible to exploit a database, which makes a website more easily navigated by visitors and easier to maintain.

For this to be technologically feasible, all pages in the website are being converted to Active Server Pages using Microsoft FrontPage and Macromedia Dreamweaver.

The page templates themselves are created to decrease download time by the use of includes. Both the header and footer are created as individual files, and are "included" in the file as the page downloads. Not only is this speedier, it guarantees a consistent look to the pages, and greatly streamlines the webmaster's task of laying out each page. When updates are needed to the header or footer, only one (or a small handful) of files needs to be changed, not all 1800 that compose our site.

Consistency is further enhanced by the use of Cascading Style Sheets. A separate style sheet determines styles for all the pages in the site, eliminating the need to format web page paragraphs individually.

Navigation has been improved by the use of 2 drop-down menus, created with a javascript-based software called Tigra Gold. One menu, which spans the top of the page, orients the visitor to the major areas of the site: About Us, What We Do, IPM Tools, Resources & Publications, Calendar, and Search. Major subsites (IPM commodities) are listed under What We Do: Fruits, Vegetables, Livestock, Field Crops, Landscapes, Parks & Golf Courses, Nursery & Greenhouse, and Buildings. Pages associated with these subsites have a corresponding lefthand menu that lists resources pertaining to that commodity.

In order to manage the volume of IPM documents, their titles have been collected in a Microsoft Access database along with associated urls and keywords. On the search pages associated with each commodity, one can choose keywords to search for documents of one's choice. Behind the scenes, a javascript query retrieves the titles from a database and delivers them to the server, which composes a unique page based on the visitor's preferences.

Navigation in a website partly depends on the visual clues provided by the graphic layout. Using Adobe Illustrator and Photoshop, I created a completely new look for the website's pages. A new color scheme and layout provides eye appeal and optically guides the visitor toward navigational elements. Image files were used judiciously to make the download time as short as possible. The design accommodates the navigational menus, the header (which contains the IPM logo and the top menu) and the footer (which contains a contact with the webmaster, a link to About this Site, and a description of the IPM Program's relationships with funding bodies). The body text of each page is

uniformly formatted by the style sheet. Thus each page of the website is identifiable as belonging to the NYS IPM website by consistent use of the header and footer. Proper identification on each page is important because it provides consistency for the visitor, especially if the website is accessed from a point other than the homepage.

Since the IPM Program is in partnership with Cornell University we need to display the Cornell logo on our web pages. Continuing conversations with the Program Manager of Developer Relations, Office of Web Communications has helped us make sure we are in compliance with the University's new guidelines regarding the use of the Cornell logo.

Conclusion:

So far we have been able to achieve our goals of greater efficiency (in terms of download time, ability to retrieve documents, and navigation for the visitor) and a new graphic look for the website. There are portions of the old (current) website that still need to be transformed, ie Vegetables and Publications, and this will be done in the first month of the new year. The pre-production site is operating well on both Macintosh and pc platforms, and so I anticipate that the remainder of the work will go smoothly.

Looking off into the future, there are a couple of features that I envision for the website First, I have already thought of ways to make our database even more efficient by eliminating duplicate titles. This will be done as a first "next step" after the website is publicly launched. Another goal is to make it possible for authors to submit documents to the website themselves by utilizing SharePoint software.